

ATTENDEES:

Name	Organisation
Alice Meakin	University of Hull
Andrew Gowland	Fugro EMU
Andy Crossley	Scarborough Borough Council
Chris Ashcroft	EA
Chris Bourne	Scarborough Borough Council
David Robinson	Scarborough Borough Council
Dr Andy Parsons	CH2M HILL Halcrow
Dr Nick Cooper	Royal HaskoningDHV
Dr Paul Fish	CH2M HILL Halcrow
Dr Steve Bloomer	Teesside University
Dr Sue Hull	University of Hull
Dr Travis Mason	Channel Coast Observatory
Innes Thompson	EA
John Riby	Yorkshire Regional Flood and Coastal Committee Independent Member for Coastal
Kieran Bostock	Hartlepool Borough Council
Mark Anderson	Academy Geomatics
Martin Aston	Scarborough Borough Council
Martin Lloyd	Scarborough Borough Council
Neil McLachlan	East Riding of Yorkshire Council
Peter Woods	North Tyneside Council
Prof Robin McInnes	Coastal & Geotechnical Services
Robin Siddle	Scarborough Borough Council
Simon Wilson	South Tyneside Council
Steve Dunning	Redcar & Cleveland Borough Council
Suzanne Hall	EA
Trevor Dixon	Northumberland Council

APOLOGIES:

Bill Rodden
Bryan Curtis
Cllr Mike Cockerill
Daniel Normandale
Dr Richard Swift
Paul Armin
Stena Nasapen- Watson
Susan Wilson
Tony Hanson

COPY TO:

All of the above

Presentation 1

Speaker:

Travis Mason, Channel Coast Observatory



The presentation outlined the benefits of operating the coastal monitoring programmes as a network, rather than as completely individual programmes, but retaining the ability to adapt the standard monitoring procedures to local requirements; namely the consistency of specifications and data management, and much closer collaboration between coastal engineers in other Regions. With the national consistency of data collection it is now proving possible to produce 5-year baseline information such as 5 year difference beach models, changes in MHW and MLW contour, cliff lines etc. to give a broad-scale view of coastal “hot spots”. The presentation also highlighted the need to archive information about beach management, in order to make meaningful conclusions about observed beach changes; obtaining such information has been something of a challenge in some areas.

The next steps in design for the next 5-year phase of monitoring were outlined, including review of data usage and potential for reducing or changing the data collection type or frequency, although few reductions in data collection would be envisaged until beach change can be assessed over at least 10 years. However, there are notable differences in frequency of data collection between Regions, particularly for aerial and LiDAR, and is interesting to understand the rationale for use of the data as ideas or experience with new technology, for example, in one Region may be shared with others. Travis concluded with the timetable for tasks leading to the submission of the combined bid for the next 5 year phase of monitoring.

Questions:

Q: Can a reduction in funding by 20% be achieved by efficiency savings?

A: Experience in the Southeast has shown that in house work can be 20% cheaper. LiDAR could be less frequent but of better quality and aerial is coming down in price. The Programmes are very much open to ideas on this.

Q: What can be done for the next monitoring programme?

A: More in the way of partnership working would be useful as, for example the sharing of Swath Bathymetry with the MCA. The adoption of the Open Government License by organisations such as Natural England and other public sector funded bodies has been a breakthrough in such collaboration, and has the potential to lead to significant savings. It is disappointing to note that at present the EA still charge for aerial and LiDAR data to third parties; however data is shared for free with coastal authorities and the consultants working on their behalf. EU money could perhaps be sought and other organisations could be engaged to seek potential funding, although this can be quite a time consuming process.

Q: What are the current valuation figures to justify collection?

A: Calculations are produced every financial year based on how much the data would be to buy for Cell 1, for example c.£3.8m worth of data was downloaded in the first quarter of 2014 alone. Data is not just used for coastal engineering and is downloaded by organisations such as BGS, CEFAS and the MMO along with universities. The method of sharing data eradicates duplication at the tax payers' expense, and there are no costs involved in the dissemination of data since users draw off directly the data they require. An additional benefit is the saving of officer time when dealing with FOI requests.

Presentation 2

Speaker:

Andy Parsons, CH2M HILL Halcrow



The presentation initially covered the development of the strategic monitoring programme since 2002 including the stakeholders involved and the extent of data and reports that are available. Although the combined Cell 1 programme has been running since 2008, data collection for the sub-cell north of the Tyne has been ongoing since 2002 so we now have up to 12 years' beach data now for some locations. However, wave data collection so far is much more limited with about a year of data collected in 2010-11 at just two locations, followed by three new wave buoys deployed in 2013. The presentation slides attached give an overview summary of the data collected and reports available and explain how to obtain the data and reports from the www.northeastcoastalobservatory.org.uk website. This was followed by suggestions on how and for what the data can be used. Although the primary focus is to obtain strategic data to inform the delivery of the SMP2 and its future update, the data is valuable for the development of strategies, schemes and updating flood and erosion risk assessments. The latter part of the presentation focussed on the longer term benefits of the strategic programme and the importance of continuing

monitoring to gather consistent data over at least 20 years in order to provide reliable data that can be used to detect trends and extreme values.

Questions:

Q: How often are the Cell 1 asset inspections carried out?

A: Every 2 years, the next being this summer.

Q: Were any of the assets noted to be of poor condition in the inspections affected by the storm surge?

A: Yes, we are aware that some of assets that were damaged were highlighted during the last inspection and therefore it didn't come as much of a shock.

Nick Cooper pointed out that, in his opinion, walk over surveys are the most important activity as it is often used as a basis for maintenance programmes followed by beach topography and wave data. John Riby added to this by stating that this allows for a more proactive rather than responsive approach.

Nick Cooper suggested that as a means for future savings the frequency of aerial, LiDAR and bathymetry could be reduced. A major concern with LiDAR is that it does not provide the same level of accuracy as the topographic data although it was acknowledge that it has improved in recent years. Paul Fish noted that for Cell 1 due to the cliffs the LiDAR data collection is an essential part of the aerial photographic survey as it is necessary for accurate georeferencing.

Presentation 3

Speaker:

Paul Fish, CH2M HILL - Halcrow



Paul Fish presented an update on the beach and cliff monitoring undertaken to date. He outlined the location and types of monitoring, the advantages and disadvantages of each technique and presented a summary of results to date. Data for beaches shows a high degree of seasonal variety, but very limited long-term net change. Data for cliffs shows good agreement between field-based

and aerial survey-based assessments. The results show recession rates are generally low, with spatial variability strongly related to cliff behaviour unit type.

Points arisen:

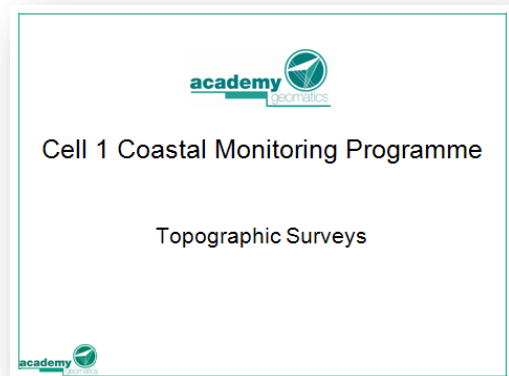
CH2M HILL asked the group to inform them of any beach management programmes to better inform topographic survey analysis.

Innes Thompson made the group aware of the EA's research budget that is undersubscribed and it would be worth approaching them for funding.

Presentation 4

Speaker:

Mark Anderson, Academy Geomatics



Mark Anderson introduced himself as Company Director of Academy Geomatics. The company has a wealth of experience across a wide range of surveying methods and specialises in topographical surveys for application in, amongst other things; construction, demolition, planning and conservation. Mark explained the company's role in the collection of data for the monitoring programme that includes 250 section profiles, 22 topographic survey areas, 125 virtual monitoring points and 4 cliff top surveys. Full Measure surveys are carried out between the months of September and November and Partial Measures between March and April. The company employs a variety of high-tech specialist equipment for the collection of data and Mark described the methodology for some of the techniques and how the field data is processed into deliverable results for the customer. Some of the issues were highlighted alongside possible improvements to future measures.

Questions:

Q: Are the Authorities alerted when surveying is taking place?

A: Yes, both the Police and Coastguard are notified along with councils.

Q: Can Academy Geomatics carry out supplementary work whilst carrying out topographic monitoring to achieve efficiencies?

A: No, due to tidal constraints and working windows this would not be possible.

Presentation 5

Speaker:

Nick Cooper, Royal HaskoningDHV



Nick Cooper presented work to date on the Cell 1 Sediment Transport Study. This project is being undertaken in two stages; the completed Scoping Phase and the in progress Main Phase. The project aims to improve understanding of the key mechanisms and directions of sediment transport within the frontage. The work comprises a detailed literature and conceptual understanding of sediment transport across the whole of Cell 1, historical trends analysis of changes at the frontages subjected to a historic legacy of colliery spoil tipping, numerical modelling of alongshore and cross-shore sediment transport and a sand tracer experiment to examine sediment transport pathways in Scarborough South Bay. The project is due to be completed at the end of August 2014.

Questions:

Q: Sue Hull asked if the university students could be involved in the sand tracer experiment?

A: Yes, we will be planning on using a few students for the study.

Q: Is there evidence to support anecdotal assumptions of longshore sediment movement along Cell 1?

A: There is a modest overall net transport north to south and the study aims to provide greater certainty on the assumptions.

Presentation 6

Speaker:

Robin McInnes, Coastal & Geotechnical Services



The Crown Estate owns virtually the entire sea bed out to the 12 mile nautical limit and has rights to explore and utilize natural resources such as marine aggregates for construction purposes including over two million tons a year for beach replenishment.

The 'Marine Aggregate Sustainability Levy' has funded over £22 million of research in the marine environment since 2002, and two new publications have been launched by The Crown Estate in collaboration with the British Marine Aggregate Producer's Association (BMAPA).

The book 'Aggregate Dredging and the Marine Environment' provides an overview of recent research and current industry practice in a well-illustrated, informative way. Each chapter covers a different topic and has been written by an expert in that field. The second publication 'Marine Aggregate Dredging and the Coastal Environment' provides best practice guidance for assessment, evaluation and monitoring of the possible effects of marine aggregate extraction on the coast. It explains how a 'Coastal Impact Study' is prepared; a report that supports the necessary Environment Impact Assessment that accompanies a dredging license application. The guide includes several very clear, helpful diagrams and photographs that are clearly understandable by non-technical readers.

Both reports are available from The Crown Estate at www.thecrownestate.co.uk

Hard copies of the publications were made available on the day.

Questions:

Robin McInnes received questions on the publications over lunch.

Presentation 7

Speaker:

John Riby, Martin Wright Associates



In Richard Swift's absence, John Riby on behalf of Martin Wright Associates, gave a presentation outlining the work thus far carried out on the Cell 1 Inter-tidal BAP Habitat Study. He reminded the meeting about the scope of this study which is to review and compile the existing baseline habitat information for UK BAP Priority sites along the Cell-1 frontage. He explained the complex modelling and assessments undertaken to examine the potential changes and losses that these sites will encounter over the SMP2 timescales, in relation to both sea-level rise (using UKCP09 projections) and the impacts of prescribed SMP2 policies. John advised that the Study will seek to identify opportunities where necessary for inter-tidal habitat creation, and coastal defence adaptation, in order to mitigate the losses of inter-tidal habitat loss identified. This work should provide options for incorporation into a 'Regional Habitat Creation Programme', which would address the needs for mitigation and/or compensation that may be ascribed to the policies presented within SMP2. The Study report, when completed, will be added to the North East Coastal Observatory's web-site.

Questions:

John Riby received questions on the study over lunch.

End of record